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THE NURSE ANESTHETIST

BY JULIA M. SIEKE, R.N.

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The administration of anesthetics is a comparatively new field for nurses, but a promising one. A great many hospitals of the country, especially the larger ones in the east, are employing for this purpose nurses who have been properly instructed and trained in the art of anesthesia.

A nurse must be very much interested to enjoy it and to be successful. In a report of the year 1915 from the Woman's Hospital, New York, I read the following: "Nurse anesthetists are no longer an experiment in this institution, but something that has come to stay." There is more or less opposition to this practice in some states, due to the fact that nurses who have not had the proper training in anesthesia were giving anesthetics. This may be necessary in an emergency, but it should not be done as a routine. If nothing else is considered, the patient should be. In "Modern Surgery," Dr. Da Costa says: "The administration of an anesthetic should not be intrusted to a novice. The anesthetist should be one of your best men."

One ought to know the fundamental principles, and not only those, but a nurse should realize what an anesthetic may mean to a patient before attempting to give it.

If a nurse is interested in anesthesia, she should study and keep on studying. When she begins to administer anesthetics, herself, she should aim to give each one better than the last, and above all try to make the patient's journey a pleasant one. The proper method of administration will make it pleasant for ninety-nine per cent. of patients.

Ether seems to be the favorite anesthetic to-day. Gas oxygen is an excellent anesthetic for select cases. A combination of gas oxygen with a very small amount of ether makes a good anesthetic, which may be used for major surgery. The ether helps to bring about muscular relaxation, which might not be possible with gas oxygen alone. It is never given in vascular disease. When it can be used, it is the ideal anesthetic, because it eliminates post-operative nausea almost entirely and the patient recovers immediately after the administration has been discontinued.

The Gwathmey apparatus is an excellent one for the administration of this combination. The mechanism is simple and the apparatus is a most economical one. A tank of nitrous oxide may run from one hour and twenty minutes to two hours without freezing. I have used it for a number of years and find it most satisfactory.

The Administration of Ether.—The drop method is the safest and by far the most pleasant for the patient. The ether is poured drop by drop on gauze (12 layers of open mesh to begin with), which is placed over the patient's nose and mouth, not touching either, and forming a convex cup-shaped mask.

If the anesthetic is started with ether, keep the gauze a short distance from the face when beginning. Allow the patient to get used to it gradually. Never crowd it, as it frightens the patient and gives rise to resistance and straining, and of course irritation, coughing, and all other unpleasant symptoms of the second stage. Do not try to put your patient under in the shortest time possible, but try to keep him perfectly at ease, and the sleep of anesthesia will be a quiet one resembling normal sleep. Let the patient be the indicator as to the amount of ether to give, espcially during the first stage. Give it slowly, increase gradually, and give only that amount which the patient can take without fussing. After a few minutes the sensations become dulled and then the ether may be increased without disturbing the patient.

When symptoms of the second stage appear, give the ether in a more concentrated form by adding more gauze. If the patient begins to strain, struggle, or fight, it is much better to give him a breath of fresh air than to push the ether. The average patient will become calm after getting a breath and will go on without further resistance. There are exceptions to this, as well as to other rules. For instance, if the patient is a heavy, muscular type, perhaps an alcoholic, and should try to walk off the table, keep on giving it by all means. Even this type responds nicely to a momentary suspension of ether sometimes, so this, as well as almost everything else, must be left to the judgment of the anesthetist. In other words, humor the patient; do not irritate him.

The amount of ether and concentration during the second and third stages depend entirely upon the patient and the depth of anesthesia required. If at any time the patient does not seem to breathe properly, stop at once and determine the cause. It may happen, during the second stage, as a result of resistance. Here is an illustration: The patient is afraid but tries to be brave; all is well in the beginning, then the centers of inhibition are depressed; he can no longer restrain this fear, which manifests itself in resistance. He holds his breath and apparently forgets to breathe. Cyanosis occurs as a result of suspended oxidation. It may be necessary not only to stop the ether, but to give artificial respiration to overcome this difficulty. Respiratory interferences may be caused by many conditions, aside from the anesthetic itself.

The position of the patient is of great importance. The head should be kept on a level with the body. Some patients are better with a pillow, some without. Very obese patients are prone to respiratory difficulty and are much better subjects when the chest and head are slightly elevated. Moderate elevation does not interfere with the operative procedure, as a rule. This may be absolutely necessary for some, while others may be all right with the head level. It is, however, a good plan for all those who are afflicted with obesity. Elevation may eliminate consequent, if not immediate, troublesome conditions.

An individual without teeth and with relaxed muscles of the face and tongue, due to old age, may become cyanotic or may not be able to breathe at all, as soon as relaxation occurs. It may be necessary to hold the lower jaw forward, keep the mouth open by a gag and hold the tongue so that it will not be drawn back with each inspiration and thus obstruct the air passage.

In old people, stenosis of the nares is not an uncommon condition. Other physical defects will manifest themselves, so that they do not seem to get sufficient air through the nasal passages.

An anesthetist must be on the alert every minute in order to recognize any unforeseen emergency and that she may know how to overcome the various troublesome conditions which may arise. It is true that they do not happen often, but when they do appear she must be quick to realize what has happened and know what to do.

Some time ago, I was giving ether to a patient with an exophthalmic goitre. Everything went along nicely until suddenly the patient stopped breathing, without any apparent cause or warning. At first I did not know why, because she had been breathing as well as a patient with an enlarged thyroid, and with a high sand bag under her shoulders, could breathe. I knew that there was no reason for cessation of respiration as far as the anesthetic was concerned. The surgeon found that the patient had an abnormally small trachea which one of his assistants had clamped, mistaking it for a blood vessel. The hemostat was removed and the patient proceeded to breathe. All this happened in about one minute. In this case I could not know just what had happened, but I noticed the presence of the diaphragmatic contraction and realized that the trouble was due to some other cause than the anesthetic itself.

The respiratory system is the greatest source of information during the time of anesthesia. Each breath brings a report and we cannot afford to lose even one. If we listen to and understand these reports, we are well informed as to the patient's condition, the depth of anesthesia, and certain changes which may take place as a result of anesthesia.

The greatest source of information does not mean the only one. In certain cases the pulse may be of more importance. The pupillary reflexes are not very reliable; they are very sluggish sometimes, and often the characteristic third stage pupil does not appear until the patient has been in the third stage for some time. Therefore it is not necessary to wait for the third stage pupil, if the patient is otherwise ready for the incision.

How can we tell that the patient is ready for the incision? (1) Any second stage symptoms which may have been present have disappeared. "The second stage can be eliminated in the majority of cases by the method of administration." (2) Complete unconsciousness and muscular relaxation. (3) Respirations are deep and regular, automatic. (4) The pulse begins to decrease in rate. (5) The pupils may be slightly contracted, normal, or moderately dilated, but *react to light.* (6) No swallowing.

Swallowing is a pretty good sign. The patient may appear to be in the third stage, he may be perfectly relaxed, breathing deeply, and all other symptoms of the third stage may be present, but if he continues to swallow he is not in the third stage.

As soon as the patient is in the third, or surgical, stage, the anesthetic should be given more sparingly,—only enough to keep the patient perfectly relaxed. A patient may be rigid during the time of operation because he is getting too much, instead of an insufficient amount of, ether.

The anesthetic and administration vary with the individual. We gain much by watching others. As Dr. S. Weir Mitchell said, "We gain by mistakes." By reading and observing all we can, we profit by the experience of others, but our own experiences teach us most. It is most necessary, however, to go to a preparatory school before we begin in the old school of experience.

Courses in Anesthesia.—The following outline is that followed at the University Hospital Training School for Nurses of the University of Pennsylvania:

1. The course is open only to graduate nurses of those training schools that meet the requirements of the State Licensing Board.
2. Applications will be accepted only from those assured of positions upon the completion of the prescribed course.
3. The course covers a period of three months in the hospital, daily except Sundays, from June 15 to September 15, and includes:

(a) Practical demonstration in the administration of the various anesthetics—ether, chloroform, nitrous oxide, intratracheal and intrapharyngeal anesthesia. (b) Three lectures on the physiological effects of the various anesthetics. (c) One lecture on the Circulatory System. (d) One lecture on the Respiratory System. (e) Practical instruction in Auscultation of the heart sounds. (f) The preparation of patient for anesthesia and the care during the recovery period. (g) The fee for the course is $75.00.

Various other hospitals throughout the United States are giving these courses and the demand for them is increasing.

In conclusion, I would say that the registered nurse anesthetist should not be employed unless she has had a course under the guidance of a graduate anesthetist of wide experience, and until a certificate as a qualified anesthetist has been granted her.

PROFESSIONAL OBLIGATIONS OF THE PRIVATE DUTY NURSE[1]

By Genevieve E. Kidd, R.N.
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What does the word obligation convey to you?

An obligation, that which obligates or constrains, that which constitutes a moral duty,—trustworthy. "A tender conscience is a stronger obligation than a prison." "The main difference between people seems to be, that one can come under obligations on which you can rely,—is obligable, and another is not." Any act by which a person becomes bound to do something for another or to forbear something, external duties imposed by courtesy or kindness. "Everyone has obligations which belong to his station, duties extend beyond obligations and direct the affections, desires, and intentions, as well as the actions."

To discuss this subject and not idealize is difficult,—though it is true we must have ideals.

In human relations there are three professions that touch our lives with intimate contact,—those of the minister, the physician and the nurse. Each is a safekeeper of that which we know to be our greatest responsibility,—human life.

Quoting from a recent splendid talk to nurses by a university professor, "Nursing should be a deepened and glorified profession, it is vital and important. The physician's work is dependent on the

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[1] Read at a meeting of the Northwest Sectional Conference, Glacier Park, Montana, July, 1919.